

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of : Customer Number: 46320
William DA PALMA et al. : Confirmation Number: 1522
Application No.: 10/734,866 : Group Art Unit: 2626
Filed: December 12, 2003 : Examiner: M. Colucci
:
For: A RUN-TIME SIMULATION ENVIRONMENT FOR VOICEXML APPLICATION
THAT SIMULATES AND AUTOMATES USER INTERACTION

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply Brief is submitted under 37 C.F.R. § 41.41 in response to the EXAMINER'S ANSWER dated February 5, 2010.

The Examiner's response to Appellants' arguments submitted in the Appeal Brief of December 14, 2009, raises additional issues and underscores the factual and legal shortcomings in the Examiner's rejection. In response, Appellants rely upon the arguments presented in the Appeal Brief of December 14, 2009, and the arguments set forth below.

1

REMARKS

2

3 **Non-Compliant Examiner's Answer**

4 On page 4 of the Appeal Brief, Appellants pointed out where the Examiner's Answer is
5 required to include particular content discussed in M.P.E.P. § 1207.02, yet the Examiner has
6 completely ignored this requirement in the Examiner's Answer. As noted throughout the
7 prosecution of this application and in the Appeal Brief, the Examiner has failed to properly
8 establish the facts underlying the Examiner's analysis. Appellants' position is that these
9 omissions in the Examiner's *prima facie* analysis are correctable by the Examiner, and the
10 correction of these omissions would help both Appellants and the Honorable Board gain a better
11 understanding of the alleged findings of facts and analysis employed by the Examiner in
12 rejecting the claims. Thus, Appellants respectfully request that the Honorable Board remand the
13 present application to the Examiner to address these omissions.¹

14

15 **New grounds of rejection**

16 At the outset, Appellants note that the Examiner has changed the basis for rejecting the
17 claims. Specifically, the Examiner has cited to new passages within both Williams and Koehler
18 to allegedly teach certain of the claimed limitations. Referring to page 13 of the Examiner's
19 Answer, the Examiner asserted:

¹ The Board has persistently declined to uphold an Examiner because of omissions in the Examiner's half of the record. E.g., *Ex parte Daleiden*, Appeal 2007-1003 (Mar. 14, 2007) (remanding because examiner failed to respond to arguments in the Appeal Brief); *Ex parte Rozzi*, 63 USPQ2d 1196, 1200-03 (BPAI 2002) (remanding without decision because of a host of examiner omissions and procedural errors); *Ex parte Gambogi*, 62 USPQ2d 1209, 1212 (BPAI 2001) ("We decline to tell an examiner precisely how to set out a rejection."); *Ex parte Jones*, 62 USPQ2d 1206, 1208 (BPAI 2001) (refusing to adjudicate an issue that the examiner has not developed); *Ex parte Schrieker*, 56 USPQ2d 1723, 1725 (BPAI 2000) ("The examiner has left applicant and the board to guess as to the basis of the rejection ... We are not good at guessing; hence, we decline to guess."); *Ex parte Bracken*, 54 USPQ2d 1110, 1112-13 (BPAI 1999) (noting that the appeal is "not ripe" because of omissions and defects in the examiner's analysis).

1 Examiner has refined the grounds of rejection to direct the majority of the claim language to be
2 taught by Williams as originally intended by Examiner, wherein Koehler now has been clarified to
3 teach "deriving from the voice application a nominal output of the voice application", whereby
4 Examiner believes Kochler to teach user interaction for the voice application taught by Williams
5 such as a simulation tool that gives an option to interact with text and voice.
6

7 Appellants will address these changes below.

8

9 Non-analogous prior art

10 On page 8, line 1 through page 10, line 3 of the Appeal Brief, Appellants presented
11 arguments with regard to Kochler being non-analogous prior art. The Examiner, however, did
12 not address these arguments in the Examiner's Answer.

13

14 Examiner's new analysis

15 On page 4 of the Examiner's Answer, the Examiner presented the following analysis

16 processing the user simulation script ([0034]) to generate both a simulated output for the
17 voice application corresponding to the nominal output and a simulated input for the voice
18 application corresponding to a pre-determined user input to the voice application (an expected
19 voice input and a voice-recognized text input associated with a branch of the voice capable
20 markup language application, and analyzing the expected voice input and the voice-recognized
21 text input to determine an input to the tag, Williams [0070]). (emphasis added)

22 The underlined portion of the above-reproduced passage represents new analysis presented by
23 the Examiner in the Examiner's Answer.

25

26 For ease of reference, the Examiner's newly cited paragraph [0070] of Williams is
27 reproduced below:

28 In another embodiment, the inputs to the tags are provided by analyzing the voice-
29 capable markup language application to determine an expected voice input and a voice-
30 recognized text input associated with a branch of the voice capable markup language application,
31 and analyzing the expected voice input and the voice-recognized text input to determine an input
32 to the tag. (emphasis added)

33

34 As claimed, the user simulation script is processed to generate (i) the simulated output and (ii)
35 the simulated input. The Examiner's previously-cited paragraph [0034] refers to a test script.

1 However, the Examiner's newly cited paragraph [0070] does not. In the Third Office Action, the
2 Examiner also cited paragraph [0047] of Williams since this paragraph also referred to a
3 "software script generator 56 [that] provides the one or more test scripts to the script execution
4 engine 58." However, for reasons presented on page 12, lines 8-17 of the Appeal Brief, the
5 Examiner abandoned the Examiner's reliance upon paragraph [0047] since the test scripts of
6 Williams do not correspond to the claimed "user simulation script."

7

8 A first problem with the Examiner's new analysis is that what is being processed in
9 paragraph [0070] is not a user simulation script. As claimed, the user simulation script is
10 processed. However, Williams teaches analyzing the voice-capable markup language
11 application. Paragraph [0070] is part of what Williams describes as step 440 (i.e., generate test
12 sequence for a tag). Ultimately, as discussed in paragraphs [0072]-[0073] and referring to step
13 460, the test sequence that is generated in step 440 is compiled into a test script. Therefore,
14 whereas paragraph [0070] describes a step prior to a particular script being created, the claim
15 limitations at issue refer to what occurs after a particular script has been created.

16

17 A second problem with the Examiner's analysis is that the Examiner's newly cited
18 passage does not teach generating both the (i) the simulated output and (ii) the simulated input.
19 Referring to the bolded portions of the above-reproduced passage, the Examiner's analysis is
20 silent as to a simulated output.

21

22 A third problem with the Examiner's analysis is that the Examiner's cited passage does
23 not teach that a simulated input is generated. As discussed on page 10 of the Appeal Brief, the

1 actual input into a voice application is audio (e.g., voice), the simulated input is text. Therefore,
2 the simulated input is a text version of the actual audio input. Although the Examiner's cited
3 passage refers to "an expected voice input and a voice-recognized text input," Williams is
4 unclear as to what is meant by "voice-recognized text input." There are only four instances of
5 the phrase "text input" within Williams – two instances in paragraph [0070] and two instances in
6 claim 9. The inclusion of the phrase "voice-recognized" implies that the text input is spoken text
7 (e.g., a spoken word/letter such as "one" in response to the command of "say 'one' for English or
8 'two' for Spanish") as opposed to the data type of text (in contrast with the data type of voice)
9 since the data type of text is not voice-recognized. Therefore, the only proper interpretation of
10 the "voice-recognized text input" of Williams, in order to give meaning to the modifier "voice-
11 recognized," is that this refers to spoken text and not the data type of text. Therefore, Williams
12 fails to teach that a simulated input is generated.

13

14

15 Referring to the Examiner's comments in the "Response to Argument" section of the
16 Examiner's Answer, the Examiner asserted the following in the last full paragraph on page 13:

17 Examiner acknowledges Appellants clarification during this appeal brief of what is
18 intended to be claimed, such as "the actual output (i.e., nominal output) of a voice application
19 would be a voice, the simulated output is text. Similarly, since the actual input into a voice
20 application is audio, the simulated input is also text" (Appeal Brief page 10 last paragraph).
21 However, that which is claimed does not reflect that defined in the arguments by Appellant (i.e.,
22 nominal output/input is voice and simulated output/input is text). This is in fact understood as
23 speech to text. (emphasis added)

24

25 The Examiner's assertion that "[t]his is in fact understood as speech to text" reflects the
26 Examiner's failure to, in fact, understand the claimed invention.

27

1 In the specification and in the claims, Appellants have used the terms "nominal output"
2 and "simulated output"/"simulated input." A discussion of these terms is found on page 10 of the
3 Appeal Brief. The general assumption is that different terms have different meanings. Applied
4 Medical Resources Corp. v. United States Surgical Corp., 448 F.3d 1324, 1333 n.3 (Fed. Cir.
5 2006). As such, a proper claim construction of the limitations at issue recognize a difference
6 between nominal output and simulated output. As discussed in the Appeal Brief, the difference
7 between nominal output (i.e., actual output) and simulated output is that nominal output is voice
8 (or audio) and simulated output is text.

9

10 Although the purpose of the claimed invention is not relevant for either defining the
11 claimed invention or distinguishing the claimed invention over the prior art, a discussion of the
12 purpose of the claimed invention provides a better context to understand the claim limitations at
13 issue. As discussed in paragraph [0002] of Appellants' specification, both an automatic speech
14 recognition engine (i.e., speech-to-text) and a text-to-speech (TTS) engine or converter are
15 generally very CPU intensive and expensive to build and install. However, the prior art has
16 employed these devices when testing a voice application, since by its very nature, a voice
17 application deals with voice (i.e., speech). As discussed in paragraphs [0015]-[0016] of
18 Appellants' disclosure, in conventional voice systems, the testing of an application includes both
19 a speech recognition engine and a text-to-speech engine.

20

21 However, unlike conventional testing systems for voice applications, the input and
22 outputs of the claimed invention are not voice/audio. Instead, the simulated input and output are
23 text, the use of which is counter-intuitive when employed with a *voice* application. By asserting

1 that "[t]his is in fact understood as speech to text," the Examiner fails to recognize that the claims
2 do not refer to voice/audio or speech-to-text/text-to-speech. Instead, the claimed invention refers
3 to processing a user simulation script to generate both a simulated output (i.e., text) that
4 corresponds to a nominal output and a simulated input (i.e., text) that corresponds to a pre-
5 determined user input. Thus, the claims do not refer to "speech to text," as alleged by the
6 Examiner. Instead, the purpose of the claimed invention is to eliminate the need for speech-to-
7 text or text-to-speech when testing a voice application through the generation of simulated input
8 and outputs, which are text.

9

10 In contrast, consider the Examiner's discussion in the paragraph spanning pages 14 and
11 15 of the Examiner's Answer in which the Examiner describes that Williams employs the use of
12 an audio telephone signal (see also Fig. 3 of Williams) being transmitted to and from the Virtual
13 Telephone Calling System 100 and the Contact Center 64 via the PSTN.

14

15

16 Referring to the first full paragraph on page 14 of the Examiner's Answer, the Examiner
17 asserted the following:

18 Additionally Williams teaches that outputs of the tags are provided by **synthesized text-**
19 **to-speech** ([Williams [0071]). Thus Examiner strongly believes that Williams teaches "the actual
20 output (i.e., nominal output) of a voice application would be a voice, the simulated output is text.
21 Similarly, since the actual input into a voice application is audio, the simulated input is also text"
22 as argued by Appellant, but more specifically, the claims language "a simulated output for the
23 voice application corresponding to the nominal output and a simulated input for the voice
24 application corresponding to a pre-determined user input to the voice application". (bold in
25 original, underline-added).

26 As previously noted, the Examiner's reliance upon the teachings associated with the process of
27 Fig. 4 (i.e., paragraphs [0064]-[0077]) is misplaced. The method discussed in these passages
28 describe how the test script of Williams is compiled. On the contrary, the claimed limitations at

1 issue refer to processing an already-created user simulation script to generate the simulated input
2 and output.

3

4

5 On page 15, line 19 through page 16, line 12 of the Appeal Brief, Appellants presented
6 arguments with regard to the Examiner's failure to present some articulated reasoning with some
7 rational underpinning to support the Examiner's legal conclusion of obviousness. The Examiner,
8 however, did not explicitly respond to these arguments. Instead, in the last paragraph on page 15
9 of the Examiner's Answer, the Examiner asserted the following:

10 With respect to Kochler, Examiner believes that Koehler provides a more advanced call
11 flow representation of a voice application which not only handles text but displays it as shown in
12 Fig. 4.

13 Yet again, the Examiner's analysis ignores that the articulated reasoning must be based upon
14 some rationale underpinning. The display of text in Fig. 4 of Kochler is relevant only because
15 Kochler describes an interactive dialog-based training method that is used to train a human to
16 which the display of text is relevant. However, the system described by Williams is not used to
17 train a human. Instead, Williams teaches a system that generates test scripts for testing a voice
18 application. The testing is automated, and thus, the display of text is unnecessary and introduces
19 an added resource requirement that does not produce any benefit. Therefore, the Examiner's
20 articulated reasoning for modifying Williams in view of Koehler is not based upon a rational
21 underpinning since no real benefit would accrue, to one practicing the teachings of Williams,
22 based upon the Examiner's proposed modification.

23

For the reasons set forth in the Appeal Brief of December 14, 2009, and for those set forth herein, Appellants respectfully solicit the Honorable Board to reverse the Examiner's rejection under 35 U.S.C. § 103.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: April 4, 2010

Respectfully submitted,

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